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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,556	06/24/2003	Takenori Machashi	50023-198	7771

7590 06/19/2007  
McDERMOTT, WILL & EMERY  
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Washington, DC 20005-3096

EXAMINER

DUNN, MISHAWN N.

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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06/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,556	<b>Applicant(s)</b> MAHASHI ET AL.	
	<b>Examiner</b> Mishawn N. Dunn	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 6/24/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-22 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-11 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by

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~~applicant's admitted prior art~~ Ikeda (US Pat. No. 6,240,244).

3. Consider claim 1. Ikeda teaches a data output apparatus for writing on a recording medium a data stream to be inputted and reading and sending out said data stream recorded on said recording medium to external device (fig. 1), said data stream containing video-audio information compressed at a variable bit rate (col. 5, line 45 – col. 6, line 2), said data output apparatus comprising: a first buffer for holding said inputted data stream (col. 5, lines 8-26; fig. 1, 14); writing means for writing on said recording medium said data stream held in said first buffer (col. 5, lines 8-26; fig. 1, 17); a second buffer for holding said data stream to be outputted to external device (col. 5, lines 8-26; fig. 1, 19); reading means for reading onto said second buffer said data stream held on said recording medium (col. 5, lines 8-26; fig. 1, 17); predicting means for predicting duration W to consume said data stream held on said the second buffer

on the basis of the duration required for presentation of the video-audio information contained in said data stream held on said second buffer (col. 7, line 66 – col. 9, line 40; fig. 1, 23); and control means for controlling said writing means and said reading means (col. 7, line 66 – col. 9, line 4; fig. 1, 23), said writing means and said reading means writing or reading said data stream exclusively on said recording medium (col. 7, line 66 – col. 9, line 4), and said control means controlling said writing means and said reading means on the basis of the predicted duration  $W$  to consume said data stream to prevent said second buffer from underflow (col. 7, line 66 – col. 9, line 4).

4. Consider claim 2. Ikeda teaches the data output apparatus as defined in claim 1 wherein said control means further controls said writing means and said reading means in such a way as to curb the number of switchings between the writing and reading of said data stream on said recording medium (col. 7, line 66 – col. 9, line 4).

5. Consider claim 3. Ikeda teaches the data output apparatus as defined in claim 1 wherein, with the maximum duration required for writing a specific size of segment of said data stream as the first maximum duration  $T_w$  and the maximum duration required for reading on said second buffer a specific size of segment of said data stream recorded on said recording medium as the second maximum duration  $T_r$  and with a value larger than said second maximum duration  $T_r$  as the first threshold value  $T_1$  and a value larger than the value obtained by adding said first maximum duration  $T_w$  with said second maximum duration  $T_r$  as the second threshold value  $T_2$ , said control means controls said writing means and said reading means in such a way that in case said predicted consumption duration  $W$  obtained by said predicting means is not less than

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the second threshold value T2, a permit will be given for writing said data stream from the first buffer to said recording medium (col. 7, line 66 – col. 9, line 4).

6. Consider claim 4. Ikeda teaches the data output apparatus as defined in claim 3 wherein said control means controls said writing means and said reading means in such a way that in case said predicted consumption duration W obtained by predicting means is less than the second threshold value T2, the writing of said data stream from the first buffer to said recording medium is prohibited, and a permit is given for reading said data stream from said recording medium onto the second buffer (col. 7, line 66 – col. 9, line 4).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6/10/07  
9. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda (US Pat. No. 6,240,244) in view of ~~applicant's admitted prior art~~ Krause et al. (US. Pat. No. 5,877,812).

10. Consider claim 7. Ikeda teaches all the claimed limitations as stated above, except wherein said data stream is a data stream of the MPEG formula and wherein said predicting means: acquires the time code value utilized for reproduction that is contained in the data stream of the MPEG formula held in said second buffer, and predicts the duration W to consume said data stream held in the second buffer on the basis of said time code.

However, Krause et al. discloses a data stream of the MPEG formula and wherein said predicting means: acquires the time code value utilized for reproduction that is contained in the data stream of the MPEG formula held in said second buffer, and predicts the duration W to consume said data stream held in the second buffer on the basis of said time code (col. 10, lines 18-67).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, to acquire the time code value utilized for reproduction and predict the duration to consume the data stream based on the time code, in order to increase the accuracy in estimating the fullness of the buffer.

11. Consider claim 8. Krause et al. teaches the data output apparatus as defined in claim 7 wherein said time code is a system clock reference in the pack header provided

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at the head of each packet forming the program stream of the MPEG formula (col. 10, lines 18-67).

12. Consider claim 9. Krause et al. teaches the data output apparatus as defined in claim 7 wherein said time code is a system clock reference in the adaptation field at each transport packet forming a transport stream of the MPEG formula (col. 10, lines 18-67).

13. Consider claim 10. Krause et al. teaches the data output apparatus as defined in claim 1 wherein said data stream is a data stream in which bit rate information at the duration of reproduction in blocks is recorded in the information field provided at the head in the respective blocks of said data stream, and wherein said predicting means: acquires from said information field bit rate information at the time of reproduction in blocks of the data stream held in the second buffer, acquires the size of each block, and predicts the duration W to consume said data stream held in the second buffer on the basis of said information on bit rate and said block size (col. 10, lines 18-67).

14. Consider claim 11. Krause et al. teaches the data output apparatus as defined in claim 7 or 10 wherein there is additionally provided send rate detection means for detection of the amount of data per unit period to be sent out from the second buffer, and said predicting means: predicts the duration W to consume said data stream held in the second buffer on the basis of the history of the amounts of data per unit period sent out from the second buffer, the above amounts of data detected by said send rate detection means, and the history of the durations required for presentation of video-

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audio information contained in said data stream held in the second buffer (col. 10, lines 18-67).

***Allowable Subject Matter***

15. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Claims 12-22 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mishawn N. Dunn whose telephone number is 571-272-7635. The examiner can normally be reached on Monday - Friday 7:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mishawn Dunn  
May 2, 2007

  
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